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CLAIMS.

A compound for use as, or in connection with, a white rust corrosion inhibitor for water-treatment, said compound consisting of an organophosphonate having the general formula (I):

$$Z_{2} N-(CH_{2})_{n} - \begin{cases} N & - \\ | & \\ | & \\ Z & Z \end{cases} = (CH_{2})_{a} - N - (CH_{2})_{b} - N - (CH_{2})_{m} - NZ_{2}$$

$$Z & Z & Z & Y$$
(I)

Wherein

 $Z = -CHR_1PO_3R_2$

 $R = H, CH_3, C_2H_5 \text{ or } M$

10 $R^1 = H_1 CH_3, CR_3, C_6H_5, \text{ or } SO_3H_2$

M = alkali metal or ammonium ion

n = 0 to 10

m = 0 to 10

a = 0 to 10

15 b = 0 to 10

c = 0 or 1

x = 0 to 10

y = 0 to 10

20 2. A compound as claimed in Claim 1, in which R and R¹ each = H, n = 6, m = 6, c = 1, y = 0 whereby the compound is bis(hexamethylene)triamine-pentakis (methylene phosphonic acid), as in formula (II):

PCT/GB2003/004796

WO 2004/042114

11

$$Z_2 N - (CH_2)_6 - N - (CH_2)_6 - NZ_2$$
 (II)
$$Z_1 = CH_2 PO_3 H_2$$

A compound for use as a white rust corrosion inhibitor for 3. water-treatment, said compound being a random copolymer of vinylidene diphosphonic acid and vinyl sulphonic acid in a molar ratio of between 1:1 and 1:500.

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- 4. A compound as claimed in Claim 3, in which the molar ratio is 1:100 molar.
- 10 A compound as claimed in Claim 3 or Claim 4, in which the molar ratio is 1:20 molar.
 - A composition for use as, or in connection with a corrosion inhibitor for water-treatment, said composition comprising a phosphonated oligomer according to Claim 1 or a random copolymer of vinylidene diphosphonic acid and vinyl sulphonic acid, according to Claim 2, together with additives conventionally used in the water treatment industry.
- 20 7. A composition as claimed in Claim 6 in which the additives are selected from the group consisting of phosphonocarboxylic acids or salts and dispersants.
- A composition as claimed in Claim 6 or Claim 7 in which the 25 dispersant is a polyacrylate.

WO 2004/042114 PCT/GB2003/004796

12

9. A composition as claimed in any one of Claims 6 to 8 in which the composition comprises a biocide.

10. A composition as claimed in any one of Claims 6 to 9 in which the5 phosphnocarboxylic acid or salt is a phosphonated oligomer of maleic acid, of general formula (III):

H[CHCO2 MCHCO2M], PO3 M2

(III)

- wherein M is a cation such that the oligomer is soluble in water, and n is greater than 1.
- 11. A composition as claimed in any one of Claims 6 to 9, in which the polyacrylate compound is a low molecular weight polymer having a
 15 molecular weight between 2000 to 5000.
 - 12. A method for inhibiting corrosion in, or in connection with, a water-using system, said method consisting of the application or addition to said system of an effective amount of a phosphonated oligomer according to Claim 1 or a random copolymer of vinylidene diphosphonic acid and vinyl sulphonic acid according to Claim 2 or of a composition according to Claim 3.
- 13. A method as claimed in Claim 12 in which the method consists of the application to a metal prior to contact with water of an effective amount of a phosphonated oligomer according to Claim 1 or a random copolymer of vinylidene diphosphonic acid and vinyl sulphonic acid according to Claim 2 or of a composition according to Claim 3.

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WO 2004/042114 PCT/GB2003/004796

13

- 14. A method as claimed in Claim 12 or 13, in which the oligomer or copolymer is used in an effective amount of up to 1000 ppm.
- 15. A method as claimed in Claims 12 to Claim 14, in which the oligomer or copolymer is used in an effective amount of up to 250 ppm.
 - 16. A method as claimed in any one of Claims 12 to 15 in which the oligomer or copolymer is used in an effective amount of up to 100 ppm.